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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,340	03/29/2001	Yoriaki Matsuzaki	018793-243	8537

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/806,340

Applicant(s)

MATSUZAKI ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005 and 02 May 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6 and 11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 11 is/are allowed.  
6) ☒ Claim(s) 1 and 2 is/are rejected.  
7) ☒ Claim(s) 6 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/2/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. All outstanding rejections are overcome by applicants' amendment and 1.132 declaration filed 4/4/05.

In light of the new grounds of rejection as set forth below including 35 USC 102 rejection utilizing English translation of JP 06-145540 submitted by applicants with the IDS filed 5/2/05, the finality of the previous office action has been withdrawn. Thus, the following action is non-final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 each recite that the ink comprises quinophthalone of the recited formula (1). The scope of the claims is confusing in light of the disclosure in the present specification, for instance, on page 4, as well as the disclosure in the claims as originally filed of quinophthalone with different structure than now claimed in present claims 1 and 2. The quinophthalone of presently claimed formula (1) is different than that recited in the specification with respect to the double bonds found in the fused rings on the left hand side of the formula. Have the applicants inadvertently written the formula? Based on the specification as well as the original claims, it is

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believed that this is the case. If so, it is advised that applicants make the appropriate corrections to the claims. It is noted that if applicants intended to recite quinophthalone as set forth in presently claimed formula (1), claims 1 and 2 would be rejected under 35 USC 112 first paragraph since there is no support for such recitation in the specification as originally filed.

However, when considering the claims with respect to the prior art rejections, it is noted that the examiner assumed that applicants did in fact intend to claim quinophthalone of the formula set forth on page 4 of the present specification as well as in the originally filed claims.

**Claim Rejections - 35 USC § 102**

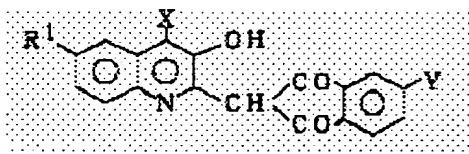
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 06-145540 taken in view of the evidence given in Ohyama et al. (U.S. 5,359,075).

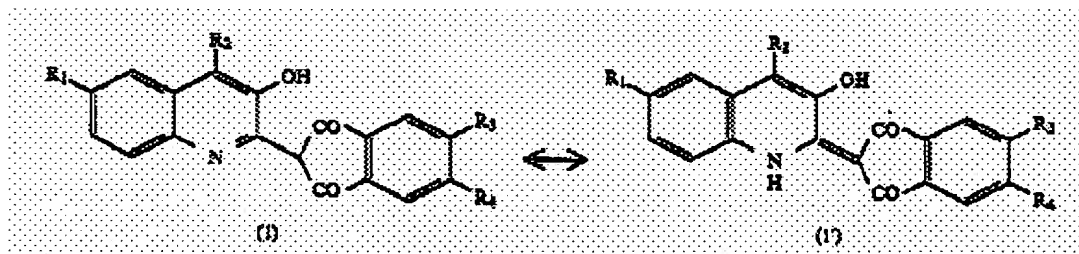
JP 06-145540 discloses aqueous ink comprising binder that is resin emulsion and quinophthalone of the formula:



where  $R^1$  is  $C_1$ - $C_4$  alkyl group, X if H, and Y is  $CONR_4R_5$  wherein  $R_4$  and  $R_5$  are each  $C_1$ - $C_{12}$  alkyl group (abstract and paragraphs 7, 11, and 13). Given that quinophthalone is added directly to the binder and then the colorant/binder and additives are added to the aqueous vehicle, it is clear that JP 06-145540 discloses colored resin as presently claimed.

It is noted that the dye of JP 06-145540 has different formula than presently claimed. Specifically, the present claims have double bond attaching the two sets of fused rings while JP 06-145540 has single bond. Further, the fused ring on the left hand side of the present claims contains one aromatic ring and one ring comprising only two double bonds while the same fused ring in JP 06-145540 contains two aromatic rings.

However, it is noted that JP 06-145540 discloses that the quinophthalone is made using conventionally well known approach. It is well known, as evidenced by Ohyama et al. (col.2, lines 29-44 and col.4, line 50-col.5, line 30), that the conventional approach for making quinophthalone results in formation of quinophthalone that exists in tautomer form as seen below:



Thus, while JP 06-145540 explicitly discloses quinophthalone as described above that corresponds to that of formula (1) disclosed by Ohyama et al., given that JP 06-145540 discloses

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making quinophthalone by conventional method which, as evidenced by Ohyama et al. above, results in quinophthalone that exists in tautomeric form, it is clear that JP 06-145540 also inherently discloses quinophthalone identical to that presently claimed (that corresponds to formula (1') of Ohyama et al.).

In light of the above, it is clear that JP 06-145540 anticipates the present claims.

**Allowable Subject Matter**

6. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 would be allowable if rewritten in independent form as described above given that there is no disclosure or suggestion in the "closest" prior art, namely, JP 06-145540 of pyridone azo compound as required in present claim 6.

7. Claim 11 is allowable over the "closest" prior art JP 06-145540 given that there is no disclosure or suggestion in JP 06-145540 of pyridine azo compound as required in the claim.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
5/13/05